Impact Assessment of Highway Traffic Safety Plan for 2017–2020

Executive summary

Client:

Ministry of Transport of the Republic of Latvia

Reg. No. 90000088687

Gogoļa street 3, Riga, LV-1050

Satiksmes ministrija

Context

Improving road safety is important for the whole society, as it prevents accidents, saves lives and reduces the number of injuries.

An ambitious goal has been set for road safety at the EU level – zero deaths or severe injuries by 2050 (“vision zero”). The goal is expected to be achieved from 2010 to 2050 by ensuring a gradual decrease in the number of deaths and injured people.

Intermim objective

Decrease in the number of deaths and severe injuries by half in comparison to 2010.

2020-2030

Long-term goal: "Vision zero"

No deaths or severe injuries.

2050

EU28 progress in decreasing the number of deaths and injured people

251,210 people died and over 1.71 million people got heavily severely injured in traffic accidents in EU27 Member States from 2010 to 2019.

- Decrease in the number of deaths in EU27: 23,7%
- Decrease in the number of severely injured people (in EU27, except of EE, FI, IT, LT due to incomplete data): 2%

Thus, EU28 is noticeably behind the set goals.

Latvia's progress in decreasing the number of deaths and injured people

1727 people died and 4982 people got severely injured in traffic accidents in Latvia from 2010 to 2019.

- Decrease in the number of deaths in Latvia: 39,5%
- Decrease in the number of severely injured people in Latvia: 19,0%

These statistics show that the set road safety goal of reducing the number of deaths and severely injured people by half by 2020 is unlikely to be achieved.

Noting that the road safety plan of 2017-2020 will close in 2020, it is necessary to evaluate the impact of road safety plan 2017-2020 on the improvements. The evaluation would work as a basis for creating the next planning document, setting the main priorities and areas to work on.

Objective of the study

The main objective of the study is to identify policy priorities for the next short-term policy planning document in road safety for 2021-2025 (and by setting goals for the time period from 2021 to 2030).

The task and methodology used

The study consists of two tasks:

- **Task 1:** To conduct progress effectivity evaluation for the road safety goals included in the policy planning documents for 2017-2020, including the information on the previous planning period.
- **Task 2:** To develop recommendations for the road safety policy for 2021-2030 in Latvia. To identify the priority areas to work on in road safety for 2021-2030 it is necessary to develop 4 alternative scenarios for road safety goal achievement predictions for 2021-2030.

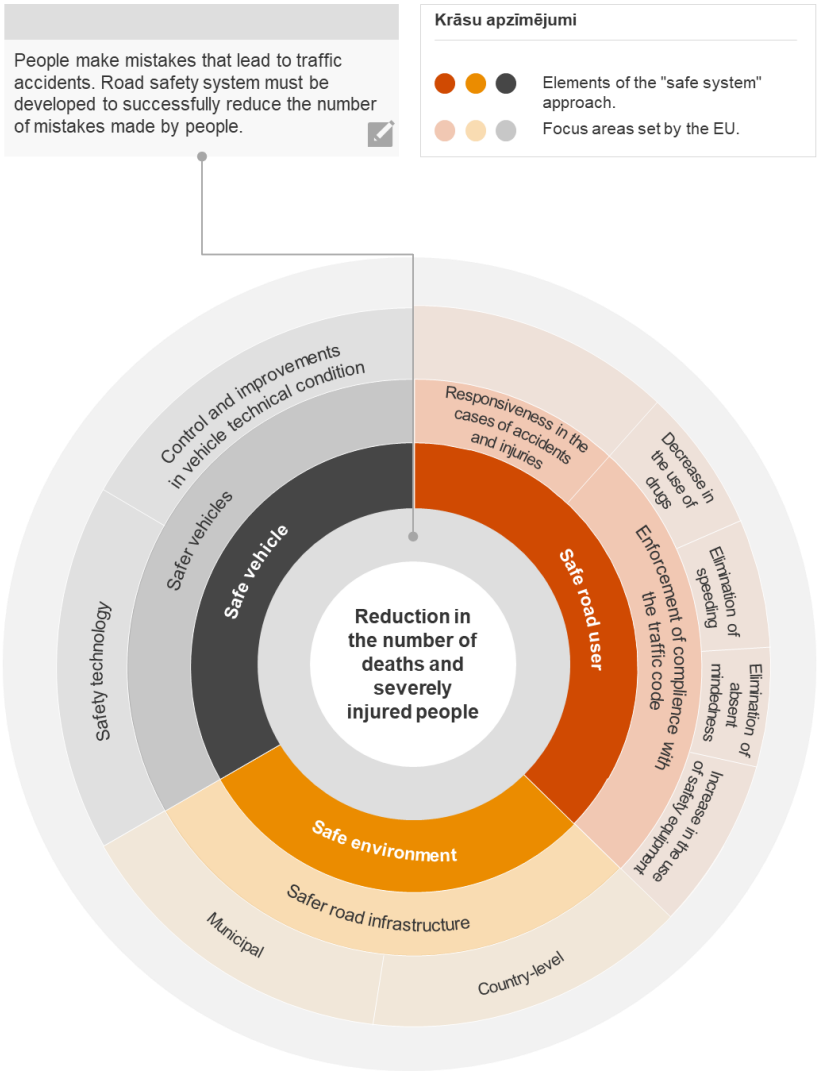
The used methodology for the study has been chosen considering the main objective and tasks.

	Task 1	Task 2
Step 1	Current policy planning and regulatory framework analysis	Scenario assumption development
Step 2	Data collection on the current situation and base model development	Modelling of 4 alternative scenarios
Step 3	Stakeholder opinion summary and analysis	Scenario benchmarking

Conculsions and recommendations

Scope of the study

Overall analysis on the implemented road safety policy has been conducted by using “safe system” approach. It gives a framework for improving road safety policies, considering EU best practices, to specifically ensure prevent deaths and severe injuries. “Safe system” approach consists of road users, vehicles and environment elements. These are directly related to the main road safety areas set by the EU. This framework was used when evaluating road safety policy planning effectivity, goal achievement and impact, as well as use of funding. The evaluation includes sectors that are directly or indirectly related to road safety, such as construction, education, health, public order.



The study includes an evaluation for the 2014-2020 time period. Different time period has been used in some parts depending on data availability. Considering the evaluation of the impact, four alternative scenarios on road safety completion predictions were modelled. Data for a longer time period (i.e. from 2001, where data was available) was analysed to better identify the potential future development tendencies in the long-term. The model was developed for 2020-2030 time period.

Scenario A (zero scenario, current budget scenario)	Scenario B (minimum scenario)	Scenario C (optimum scenario)	Scenario D (maximum scenario)
No additional measures or financing for road safety (e.g. road infrastructure is maintained, the current road network does not get additional funding, road network optimisation by not maintaining some roads). Legislation is changed to limit the usage of road safety endangering vehicles	New measures are planned, but no additional financing is received (for example, limits in road usage, speed limits in specific places – 30 km/h in cities, 80 km/h out of cities, etc.)	New measures for the "Safe System" approach are planned, and additional financing is received (for example, roads are gradually reconstructed by evaluating the most cost-effective solutions, such as roundabouts, safety islands, separation of specific road user groups (pedestrians, cyclists, cars), and by setting up safety equipment to control road users). Legislation is changed in accordance with the EU guidelines.	Considering the "Safe System" approach a new plan for complete road reconstruction is developed, and financing is received. The used solutions comply with the highest safety requirements (for example, all main highways are 2+2 with the speed limit of 120 km/h, there are limitations in purchase of new vehicles (equipping them with the newest passive and active safety systems is a requirement) and gradually limiting the registration of new vehicles)

The most appropriate scenario for Latvia to achieve the goals set in the road safety plan will be chosen depending on modelling results.

Main conclusions

Policy planning effectivity evaluation

Conclusion 1. The focus areas for road safety set at the European Union level are implemented at the national level, allocating for specific focus areas and actions in the road safety plan. At the same time, the focus areas set at the EU level sometimes anticipate wider measures than it is set in the road safety plan. Planning region policy planning documents include separate road safety matters (vehicle user education and training, safer road infrastructure, unprotected road users). However, they are only discussed at the surface level and there are no references to the implementation of the road safety plan or support for its execution.

Conclusion 2. Many stakeholders from public, non-governmental and private sector are involved in road safety policy planning and implementation, and they have separate roles according to responsibility distribution matrix. A review of the current responsibilities is required for some stakeholders (planning region administration, municipalities, education institutions) to ensure a purposeful and structured implementation of a unified policy in road safety, as well as to fully utilise the potential of all stakeholders.

Conclusion 3. Financing for road safety improvements comes from different sources (European Union funds, road safety plan financing (Road Traffic Safety Directorate dividends, Compulsory Civil Liability Insurance funds), sector ministry and their subordinate body budgets, municipal budget). Use of financing for different road safety activities is weakly coordinated amongst different stakeholders.

Progress effectivity and impact evaluation for the road safety goals, use of financing effectivity evaluation.

Conclusion 4. The number of deaths in Latvia in the reporting period shows a decreasing trend. This can be explained by the following factors: seat belt and system use in cars, change in the driver behaviour, the quality of car design and safety system quality and after-crash call reaction time, rescue team's work quality.

Conclusion 5. The number of severely injured shows an increasing trend. This can be explained by the increase in traffic intensity, which is directly linked to economic growth. Road safety measures are primarily oriented towards a decrease in the number of deaths. This reduces the

likelihood of road accidents with serious injuries to happen, while the increase in the total number of road accidents does not reduce the total number of road accidents with serious injuries.

Conclusion 6. Out of all the activities included in the road safety plan and other related road safety improving activities, the highest effectivity is for those that are implemented systematically and with an integrated approach. For example, annual informative campaigns before the Latvian summer solstice celebration in combination with increases in the penalty fines and regular police raids have reduced driving under the influence, as well as the number of accidents caused by it.

Conclusion 7. The implementation of stationary speed cameras included in the road safety plan that cost 4.42 million EUR out of state's budget in combination with other preventative actions to reduce speeding has justified. Speeding is not a less common reason for traffic accidents. Additionally, testing of average speed cameras has been successful.

Conclusion 8. In the time period from 2017 to 2019, 89.6% of road safety board financing has been spent on activities that are directed towards a safe road user. Meanwhile no financing was allocated for activities that were directed towards a safe vehicle. There is a lack of systematicity and regularity for activities that are related to safe environment and safe vehicles. Board activities that are related to these road safety elements could be more research-orientated, coordinating and supervised, as most of these activities are financed from other sources.

Evaluation of the alternative scenarios

Conclusion 9. The number of deaths or severely injured is not going to decrease if the road safety implementation is kept at the current level. It is recommended to use scenario D to achieve the interim goal of 2030. The scenario would require substantial improvements in road infrastructure in addition to all the current measures.

Recommendations

Recommendations have been developed according to the level of importance.

Monitoring the achieved results in road safety
- Continuing regular monitoring of the quantitative measures and introducing the new main performance indicators that are included in the European Union documentation
- Developing and implementing a municipal road traffic safety index
- Reviewing the currently used methodology for estimating the loses caused by traffic accidents by implementing the unified methodology used in other European countries

Improving the planning documents
- Expanding the activities included in the road safety plan

Implementing measures that are oriented towards all safety elements
- Creating a unified traffic accident analysis structure or a system for their evaluation and for using this information to improve road safety
- Exploring opportunities for the introduction of technology for traffic control and monitoring, and expanding the collection of information on the current road safety issues

Improving the division of responsibilities amongst road safety policy stakeholders
- Introducing a formalised process for involving planning region administration in road safety policy planning and implementation
- Including road safety evaluation in municipal territorial planning documentation in agreement with the Ministry of Transport
- Improving the involvement of educational institutions by providing regular consultations on road safety policy development.

Implementing measures that are oriented towards a safe vehicle
- Increasing technical control over vehicles

Implementing the best scenario for Latvia's case
- Implementing scenario D, which would require supplementing the current safety measures and substantial investments in road infrastructure

Implementing measures that are oriented towards a safe environment
- Measuring traffic intensity
- Introducing measures for the education and understanding of infrastructure designers' and buyers' in order to ensure a unified approach in road infrastructure development
- Investing in pedestrian and cycling infrastructure development

Implementing measures that are oriented towards a safe road user
- Proceeding with the implementation of the current measures and introducing new measures that are targeted towards the problem areas
- Improving the quality of driver training
- Providing the most modern equipment to rescue services

PricewaterhouseCoopers SIA
K. Valdemāra iela 21-21, Riga, LV-1010, Latvia
T: +371 6709 4400
www.pwc.lv

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